



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,172	07/31/2003	James Michael McArdle	AUS920030382US1	1419
45993 7590 11/14/2007 IBM CORPORATION (RHF) C/O ROBERT H. FRANTZ P. O. BOX 23324 OKLAHOMA CITY, OK 73123			EXAMINER HOFFLER, RAHEEM	
			ART UNIT 2165	PAPER NUMBER
			MAIL DATE 11/14/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/631,172

Applicant(s)

MCARDLE, JAMES MICHAEL

Examiner

Raheem Hoffer

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 10-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 & 10-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Response to Amendment

The Office Action has been issued in response to amendment filed 31 August 2007. Claims 1-5 & 10-18 are pending. Applicant's arguments have been carefully and respectfully considered in light of the instant amendment, and are persuasive. Accordingly, this action has been made NON-FINAL.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 & 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burdick et al (USPG Pub No. 20040107203A1; Burdick hereinafter) in view of Wocke et al (USPG Pub No. 20060161814A1; Wocke hereinafter)

As for Claim 1, Burdick et al teaches, "declaring said data feature as suspect responsive to said degree of correlation exceeding a threshold" (see paragraph [0035], [0053]), but fails to explicitly recite, "...generating a set of cleaning attributes...", "...receiving a data feature identified by a data mining process for a subset...", and "...determining a degree of correlation of said data feature to the modified fields". Wocke explicitly recites, "generating a set of cleaning attributes for each cleaned data record in a complete set of cleaned data records, said cleaning attributes reflecting

which fields of each record have been modified by a cleaning operation” (see paragraph [0023], [0039], [0111] & [0222]); “receiving a data feature identified by a data mining process for a subset of said complete set of cleaned data records” (see paragraph [0224-0227], [0291-0294]); “determining a degree of correlation of said data feature to the modified fields of said subset of cleaned data records according to said cleaning attributes” (see paragraph [0023], [0039], [0108-0112]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the method and system of data analysis taught by Wocke with the data cleansing application of Burdick in order to produce much more accurate and efficient results than could be obtained previously.

As for Claim 2, Burdick teaches, forming “...a cleaning attributes register for each cleaned data record” (see paragraph [0057-0058]), but fails to explicitly recite, generating a set of bit-mapped Boolean flags. Wocke “generating a set of bit-mapped Boolean flags” (see paragraph [0045], [0121]).

As for Claim 3, Wocke teaches, “performing an operation selected from the group of appending a set of cleaning attributes to each cleaned data record, prepending a set of cleaning attributes to each cleaned data record, distributing a set of cleaning attributes to each cleaned data record, and generating a cleaning attribute table” (see paragraph [0023], [0039], [0065] & [0105]).

As for Claim 4, Wocke et al teaches, "a step selected from the group of receiving a cluster, receiving a trend, and receiving a pattern" (see paragraph [0291-0294]).

As for Claim 5, Burdick teaches, "comparing each record in a raw data set to each record in a cleaned data set" (see paragraph [0069-0070]).

Claims 10-14 differ from Claims 1-5 in that claims 10-14 are computer readable medium whereas claims 1-5 are method claims. Thus, claims 10-14 are analyzed as previously discussed with respect to claims 1-5 above.

Claims 15-18 differ from Claims 1-4 in that claims 15-18 are system whereas claims 1-4 are method claims. Thus, claims 15-18 are analyzed as previously discussed with respect to claims 1-4 above.

Response to Arguments

Applicant's arguments with respect to claims 1-5 & 10-18 have been carefully considered but are considered moot in light of the new grounds of rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raheem Hoffler whose telephone number is (571) 270-1036. The examiner can normally be reached on 7:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2165

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RH



Raheem Hoffler



JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100